

Rejections Under 35 U.S.C. § 112, second paragraph

Claim 9 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as their invention. Specifically, claim 9 was found to be indefinite because the phrase "free-radically olefinic double bond" is unclear.

Claim 9 has been amended so that the unclear phrase now reads "free-radically polymerizable olefinic double bond." Support for the addition of the word polymerizable can be found in the specification at pg. 4, lines 18-21. Thus, the Examiner's concern has been obviated. Withdrawal of this rejection is requested.

Rejections Under 35 U.S.C. § 102(e)

Claims 1-3, 5, 11, and 12 were rejected under 35 U.S.C. § 102(e) as being anticipated by Anderson et al. (U.S. Patent No. 6,387,519).

Applicants respectfully submit that Anderson et al. does not anticipate claim 1. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); see also MPEP § 2131. Applicants first note that Anderson et al. is directed to coating compositions that must contain particles (see, e.g., col. 5, lines 33-38; col. 7, line 64 – col. 8, line 11; col. 10, lines 39-49; col. 13, line 63 – col. 14, line 46; col. 18, line 49 – col. 19, line 6), wherein the particles are useful for increasing scratch resistance (col. 5, lines 33-38; col. 7, lines 4-10). Applicants' claimed invention has no such requirement but rather is directed to repair coatings of substrates. Claim 1 has been amended to include the limitation that the invention is for the repair coatings of substrates by merging claim 11 with claim 1. Anderson et al. disclose a method for revitalizing the gloss of a polymeric substrate or polymeric coating (col. 4, lines 18-23), not a method for the repair coating of a substrate. Thus, Applicants respectfully submit that Anderson et al.'s disclosure is not directed to the same invention as Applicants' claimed invention.

Furthermore, Claim 1 has been amended to include the limitation that component B) is a reactive diluent, a liquid monomer reactant that is part of the uncured binder material, that acts as a solvent for the system, and that reacts during

the curing process to become part of the solid binder material. Component B) is thus a reactive diluent comprising at least one ester of alpha,beta-olefinically unsaturated monocarboxylic acids capable of free-radical polymerization having one olefinic double bond per molecule. This amendment is supported in the specification at pg. 3, lines 32-34. Anderson et al., however, make no mention of reactive diluents anywhere in their disclosure. While there is disclosure of reactants (col. 28, lines 45-51) and solvents (col. 15, line 67 – col. 16, line 5), none of these reactants and solvents comprise component B).

Anderson et al. disclose hydroxy-functional group acrylic polymers and acryloyl-functional group polysiloxane resins (col. 19, lines 66-67; col. 21, lines 17-25) that the Examiner argues correspond to component B) of Applicants' claimed invention. Component B) of the claimed invention, however, is a reactive diluent comprising at least one ester of alpha,beta-olefinically unsaturated monocarboxylic acids capable of free-radical polymerization having one double bond per molecule. Thus, component B) is a mono-unsaturated monomer (pg. 3, lines 30-34). In Applicants' claimed invention, this mono-unsaturated monomer functions as a UV curable reactive diluent (pg. 3, lines 32-34). The acrylic polymers and polysiloxane resins disclosed by Anderson et al. are not mono-unsaturated monomers, but rather are fully polymerized copolymers (col. 19, lines 7-9; col. 29, lines 6-24).

Because Anderson et al. fail to disclose each and every element of Applicants' claimed invention, Applicants respectfully submit that claim 1 is not anticipated by Anderson et al. Applicants further submit that claims 2, 3, 5, and 13 are in condition for allowance because these claims depend on claim 1.

Rejections Under 35 U.S.C § 103(a)

Claims 4 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. (U.S. Patent No. 6,387,519). Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. in view of Harris et al. (U.S. Patent No. 5,596,043). Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. in view of Richard (U.S. Patent No. 5,091,211).

Applicants respectfully submit that Anderson et al. alone or in combination with either Harris et al. or Richard fail to teach one of ordinary skill in the art how to make Applicants' claimed invention. The coating compositions of Anderson et al. contain particles that increase scratch resistance while permitting flexibility on plastic substrates (col. 3, lines 5-12; col. 4, lines 8-23). Indeed, every embodiment of the Anderson et al. disclosure includes these particles (see, e.g., col. 5, lines 33-38; col. 7, line 64 – col. 8, line 11; col. 10, lines 39-49; col. 13, line 63 – col. 14, line 46; col. 18, line 49 – col. 19, line 6). Applicants' claimed invention is not directed to the problem of increasing scratch resistance through the use of particles but rather solves the problem of applying filler coating compositions in a repair coating process (pg. 9, lines 20-22), especially onto metallic substrates (pg. 9, lines 23-25). One of ordinary skill in the art would not look to Anderson et al.'s disclosure to solve this problem.

Even if one of ordinary skill in the art would examine Anderson et al.'s disclosure for the problem solved the Applicants, Applicants' claimed invention requires as component B) a reactive diluent comprising at least one ester of alpha,beta-olefinically unsaturated monocarboxylic acids capable of free-radical polymerization having one olefinic double bond per molecule. Anderson et al. fail to teach one of ordinary skill in the art this element of Applicants' claimed invention. Specifically, Anderson et al. disclose hydroxy-functional group acrylic polymers and acryloyl-functional group polysiloxane resins (col. 19, lines 66-67; col. 21, lines 17-25) that the Examiner argues correspond to component B) of Applicants' claimed invention. Component B) of the claimed invention, however, is a mono-unsaturated monomer, whereas the acrylic polymers and polysiloxane resins disclosed by Anderson et al. are fully polymerized copolymers (col. 19, lines 7-9; col. 29, lines 6-24).

Furthermore, there is no motivation to combine Harris et al. with Anderson et al. to provide this missing element. The Examiner argues that Anderson et al. in view of Harris et al. teach Applicants' preferred compositions of component B). Harris et al. is directed to powder coating compositions that do not contain reactive diluents. Harris et al. merely teach that a wide variety of monomers are suitable for forming polymers useful in powder coatings. Isobornyl methacrylate is only one of

many monomers suitable in forming acrylic copolymers (col. 3, lines 6-23). Thus, like Anderson et al. alone, the combination of Anderson et al. and Harris et al. fails to teach one of ordinary skill in the art the mono-unsaturated monomers of component B) of Applicants' claimed invention. Additionally, Harris et al. do not disclose reactive diluents and, in fact, teach away from the use of any solvent in their coating compositions (col. 3, lines 35-38).

Applicants further submit that their claimed invention is patentable over Anderson et al. in view of Richard. While Richard may disclose component B) of Applicants' claimed invention (col. 4, line 53 – col. 5, line 23), incorporating the limitations of claim 11 into claim 1 now provide that Applicants' claimed invention is a process for repair coating of substrates. Anderson et al. disclose a method for revitalizing the gloss of a polymeric substrate or polymeric coating (col. 4, lines 18-23), not a method for the repair coating of a substrate. One of ordinary skill in the art would know that a repair coating implies a coating applied after the repair of a section of substrate. Revitalization, as disclosed by Anderson et al., denotes the restoration of gloss to a substrate. Furthermore, it is not inherent that revitalizing the gloss of a substrate includes repairing a substrate.

Combining Anderson et al. with Richard does not teach one of ordinary skill in the art the Applicants' process for repair coating of substrates. Richard is directed to the manufacture of vinyl floor and wall coverings (col. 1, lines 6-9). Nothing in Richard's disclosure is directed to the repair coating of substrates.

The Examiner argues that claims 9 and 10 are unpatentable over Anderson et al. in view of Richard because Richard teaches a compound having a phosphoric acid group and a double bond. The failure of Anderson et al. in combination with Richard to disclose repair coating of substrates renders this argument moot. Thus, Applicants respectfully submit that claims 4 and 6-10 are patentable over Anderson et al. alone or in combination with Harris et al. or Richard.

Summary

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. In order to expedite disposition of this case, the Examiner is invited to contact Applicants' representative at the telephone number

Se. No. 09/873,714
Docket No. FA1002 US NA

below to resolve any remaining issues. Should there be a fee due which is not accounted for, please charge such fee to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,

By: 

Steven H. Markowitz
Attorney for Applicants
Reg. No.: 27,095
Telephone: (302) 984-6139
Facsimile: (302) 658-1192

Dated: March 26, 2003

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In showing the changes, the material to be deleted is in brackets, and the material to be inserted is underlined.

IN THE CLAIMS:

Claims 1, 4, and 9 have been amended as follows:

Claim 1. (Once Amended) A process for [multilayer] repair coating of substrates which comprises:

- a) applying a filler layer of a filler coating composition to a substrate,
- b) curing the resultant filler layer by irradiation with high energy radiation and
- c) applying a top coat layer to the cured filler layer and curing the top coat layer,

[whereby] wherein the filler coating composition comprises:

- A) at least one binder capable of free-radical polymerization having fewer than three olefinic double bonds per molecule,
- B) a reactive diluent comprising at least one ester of alpha,beta-olefinically unsaturated monocarboxylic acids capable of free-radical polymerization having one olefinic double bond per molecule and
- C) at least one compound having at least one phosphoric acid group.

Claim 4. (Once Amended) The process according to claim 1, wherein the filler coating composition comprises 10-80 weight-% of component A) and 20-90 [wt. %] weight-% of component B) and wherein the weight percentages of component A) and component B) add up to 100 [wt. %] weight-%.

Claim 9. (Once Amended) The process according to claim 1, wherein the filler coating composition comprises as component C) at least one compound having at least one phosphoric acid group and at least one free-radically polymerizable olefinic double bond.